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Nematode allergen August 2003 A.ST25.txt
SEQUENCE LISTING

<110> AgResearch Limited
Shaw, Richard John
McNeill, Margaret Mary
Maass, David Richard
Shoemaker, Charles Bix

<120> Novel Allergen

<130> 31230

<140> 521434

<141> 2002-09-13

<150> NZ 523777

<151> 2003-01-24

<160> 8

<170> PatentIn version 3.1

<210> 1

<211> 228

<212> PRT

<213> Trichostrongylus colubriformis

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Pro Arg Gln Lys Arg Leu Thr Val Gly Thr Ile Ala Val Thr Gly Gly
20 25 30

Val Gly Gly Ala Ser Gly Cys Val Val Thr Gly Asn Val Leu Tyr Ala
35 40 45

Asn Gly Phe Arg Leu Arg Glu Leu Ser Ala Ser Glu Gln Gln Glu Leu
50 55 60

Thr Asn Tyr Glu Lys Gln Val Ala Glu Tyr Lys Ala Ser Val Lys Gln
65 70 75 80

Ile Leu Lys Glu Arg Gln Glu Lys Leu Lys Ser Arg Met Ser Gly Lys
85 90 95

Lys Glu Glu Lys Ala Ala Val Thr Ser Thr Lys Asp Glu Asp Leu Pro
100 105 110

Lys Pro Pro Gln Lys Pro Ser Phe Cys Thr Glu Asp Asp Thr Thr Gln
115 120 125

Phe Tyr Phe Asp Gly Cys Met Val Gln Gly Asn Lys Val Tyr Val Gly
130 135 140

Asn Thr Phe Ala Arg Asp Leu Asp Gln Asn Glu Ile Glu Glu Leu Lys
145 150 155 160

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Glu Phe Glu Lys Lys Gln Thr Val Tyr Gln Glu Tyr Val Gln Lys Gln
 165 170 175

Ile Gln Gln Gln Val Ser Asn Leu Phe Gly Gly Ala Asp Phe Phe Ser
 180 185 190

Ser Phe Phe Gly Asp Ala Lys Asp Gln Thr Thr Thr Thr Val Ala Pro
 195 200 205

Val Leu Pro Glu Asp Ala Pro Glu Gln Pro Ala Val Pro Asn Phe Cys
 210 215 220

Thr Arg Ile Tyr
 225

<210> 2
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 <213> Trichostrongylus colubriformis

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Ser Gly Cys Val Val Thr Gly Asn Val Leu Tyr Ala Asn Gly Phe Arg
 20 25 30

Leu Arg Glu Leu Ser Ala Ser Glu Gln Gln Glu Leu Thr Asn Tyr Glu
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35

40

45

Lys Gln Val Ala Glu Tyr Lys Ala Ser Val Lys Gln Ile Leu Lys Glu
 50 55 60

Arg Gln Glu Lys Leu Lys Ser Arg Met Ser Gly Lys Lys Glu Glu Lys
 65 70 75 80

Ala Ala Val Thr Ser Thr Lys Asp Glu Asp Leu Pro Lys Pro Pro Gln
 85 90 95

Lys Pro Ser Phe Cys Thr Glu Asp Asp Thr Thr Gln Phe Tyr Phe Asp
 100 105 110

Gly Cys Met Val Gln Gly Asn Lys Val Tyr Val Gly Asn Thr Phe Ala
 115 120 125

Arg Asp Leu Asp Gln Asn Glu Ile Glu Glu Leu Lys Glu Phe Glu Lys
 130 135 140

Lys
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<210> 4
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 20 25 30

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Val Gly Gly Ser Thr Gly Cys Val Val Thr Gly Asn Val Leu Tyr Ala
 35 40 45

Asn Gly Phe Arg Leu Arg Glu Leu Asn Pro Ser Glu Gln Gln Glu Leu
 50 55 60

Val Asn Tyr Glu Lys Gln Val Ala Asp Tyr Lys Ala Ala Val Lys Gln
 65 70 75 80

Ala Leu Lys Glu Arg Gln Glu Ser Leu Lys Ser Arg Met Ala Gly Lys
 85 90 95

Lys Glu Lys Ala Val Thr Pro Lys Glu Glu Asp Leu Pro Lys Ala Pro
 100 105 110

Gln Lys Pro Ser Phe Cys Thr Glu Glu Asp Thr Thr Gln Phe Tyr Phe
 115 120 125

Asp Gly Cys Met Val Gln Gly Asn Lys Val Tyr Val Gly Asn Thr Phe
 130 135 140

Ala Arg Asp Leu Asp Gln Asn Glu Ile Gln Glu Leu Lys Glu Phe Glu
 145 150 155 160

Lys Lys Gln Thr Val Tyr Gln Glu Tyr Val Gln Lys Gln Ile Gln Ala
 165 170 175

Gln Val Ser Asn Leu Phe Gly Gly Ala Asp Phe Phe Ser Thr Phe Phe
 180 185 190

Asn Gly Gly Ser Glu Lys Gly Ser Ser Thr Thr Thr Ala Ala Pro Val
 195 200 205

Leu Pro Asp Asp Ala Pro Glu Gln Pro Ala Val Pro Asn Phe Cys Thr
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Arg Ile Tyr
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 gtgactggaa atgtgctcta tgcaaacggt ttccgccttc gtgagctcaa cccatcagag 180
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Pro Arg Gln Lys Arg Leu Thr Val Gly Thr Ile Ser Val Thr Gly Gly
20 25 30

Val Gly Gly Ser Thr Gly Cys Val Val Thr Gly Asn Val Leu Tyr Ala
35 40 45

Asn Gly Phe Arg Leu Arg Glu Leu Thr Ser Ser Glu Gln Gln Glu Leu
50 55 60

Val Asn Tyr Gly Lys Gln Val Ala Asp Tyr Lys Glu Ala Val Lys Lys
65 70 75 80

Ala Leu Lys Glu Arg Gln Glu Ser Leu Lys Ala Arg Met Ala Gly Lys
85 90 95

Lys Glu Lys Ala Val Thr Pro Lys Glu Glu Asp Leu Pro Lys Ala Pro
100 105 110

Glu Lys Pro Ser Phe Cys Thr Glu Asp Asp Thr Thr Gln Phe Tyr Phe
115 120 125

Asp Gly Cys Met Val Gln Ser Asn Lys Val Tyr Val Gly Asn Thr Phe
130 135 140

Ala Arg Asp Leu Asp His Asn Glu Ile Gln Glu Leu Lys Glu Phe Glu
145 150 155 160

Lys Lys Gln Thr Val Tyr Gln Glu Tyr Val Gln Lys Gln Ile Gln Gln
165 170 175

Gln Val Thr Asn Leu Phe Gly Gly Ala Asp Phe Phe Ser Ser Leu Phe

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180

185

190

Asn Gly Ala Ser Lys Asp Ala Thr Thr Thr Thr Val Ala Pro Ala Leu
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Ile Tyr
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